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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT M. ANDRES

Appeal 2009-007642
Application 10/820,289
Technology Center 3600

Before: JENNIFER D. BAHR, MICHAEL W. O'NEILL, and KEN B.
BARRETT, *Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL¹

¹The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

The claimed invention is directed to a method for air bag deployment, wherein a deployment algorithm is sensitized or desensitized in response to vehicle speed. Robert M. Andres (Appellant) appeals under 35 U.S.C. § 134 (2002) from the Examiner's decision rejecting claims 4, 5, and 15 under 35 U.S.C. § 112, first paragraph, as lacking written description; claims 1, 10, and 15 under § 102(b) as anticipated by Okada (US 6,305,709 B1, issued Oct. 23, 2001); claim 6 under § 103(a) as unpatentable over Okada and Drummond (US 6,591,932 B1, issued Jul. 15, 2003); and claims 11-14 under § 103(a) as unpatentable over Okada. Claims 2, 3, and 7-9 have been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

SUMMARY OF DECISION

We AFFIRM.

ANALYSIS

Issue 1 - Written Description

The Examiner found that the limitation amended into claims 4, 5, and 15, requiring that the method step of sensitizing or desensitizing the algorithm occurs "independent of a crash event," is not "reasonably or sufficiently described" in the Specification as originally filed. Ans. 3. In particular, the Examiner found that the logic stored within controller 14 is executed upon a crash event. *Id.* Appellant argues that figure 2 provides support for the amended limitations, because figure 2 describes "speed related deployment discrimination," which occurs without the occurrence of a crash event. Appeal Br. 4.

Therefore, the first issue in this appeal is whether the Specification as originally filed provides sufficient written description of "adjusting a safing level," "adjusting a plausibility level," and "desensitizing the deployment algorithm decision threshold," all performed "independent of a crash event," as recited in claims 4, 5, and 15.

"[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). This test "requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Id.* "Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed." *Id.* This inquiry is a question of fact. *Id.* (citing *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985)).

The Examiner correctly found that figure 2 depicts "logic [stored within the controller 14] for determining if the vehicle is stationary or moving using vehicle speed information." Ans. 5-6; Spec., para. 19. The logic is used by controller 14 to "determine[] whether to deploy the air bag 18" "[i]n response to physically-based signals issued by the satellite sensor 16" sensing "a deploy event such as a side impact." Spec., para. 14. Thus, we find that the Specification describes the logic stored in controller 14, including the vehicle stationary/moving determination, as executing *in response to* a deploy (crash) event detected by the satellite sensors 16.

Appellant's interpretation of figure 2 is therefore inconsistent with the cited portions of the Specification. Figure 2 describes the relationship between speed and time and explains the logic in controller 14 for determining whether the vehicle is moving based on these inputs. *See id.*, paras. 19-20. As we found above, this occurs "in response to" the satellite sensor 16, i.e., after the sensor 16 determines an impact. Thus, the controller 14 receives the speed and time-since-threshold information (the "speed information" is "readily available from various vehicle instrumentation") during a crash event to determine if the vehicle is moving or stationary, which affects the deployment decision. *Id.*, paras. 19-20; *see id.*, para. 16.

Even if the moving/stationary determination were made continuously by controller 14 during vehicle operation (which is not consistent with the Specification's description of controller 14's logic), this speed determination (e.g., step 1 in claim 1) is only an input to the algorithm in controller 14 for determining whether to sensitize or desensitize the threshold based on the moving/stationary determination, and is thus a different step than the actual sensitizing or desensitizing step itself. In effect, Appellant's suggested interpretation (requiring the desensitizing step to be the determination of stationary/moving) would require the steps of "determining whether a vehicle is traveling below [or above] a predetermined speed," "adjusting the safing level of the deployment algorithm decision threshold," "adjusting a plausibility level of the deployment algorithm decision threshold," and "[sensitizing/desensitizing] a deployment algorithm decision threshold" to all be describing the same action. This interpretation would render each step in, for example, claims 1, 4, 5, and 15 to require making a stationary/moving

determination, calling into question the metes and bounds of these limitations.

Therefore, in light of the above, we are not persuaded that the Examiner erred in finding that the Specification as originally filed does not provide sufficient written description of a method having certain steps performed "independent of a crash event," as recited in claims 4, 5, and 15.

Issue 2 - Anticipation

The second issue raised in this appeal is whether the Examiner properly found that Okada anticipates the method of claims 1, 10, and 15, and in particular, the steps of "sensitizing" or "desensitizing" a "deployment algorithm decision threshold." Appellant first attempts to distinguish Okada by characterizing Okada as a control for "how the airbag deploys - not whether the airbag [is] deploy[ed] as recited." Appeal Br. 6; Reply Br. 2. However, claims 1, 10, and 15 do not recite a step for determining "whether the airbag [is] deploy[ed]." Instead, claims 1, 10, and 15 are directed to a method for "sensitizing" and/or "desensitizing," i.e., adjusting, a "deployment algorithm." *See Spec.*, para. 17 ("The sensitivity of the deployment algorithm ... may be adjusted"). Even if the claims were properly amended to require determining whether an airbag were to be deployed, as opposed to adjusting an algorithm, we agree with the Examiner's finding (Ans. 7) that Okada describes a device that determines whether to deploy an airbag based on threshold signals. *See, e.g.*, col. 9, ll. 63-65 (passenger airbag only inflates after passing AND gate 55), fig. 2, item 33, 55.

Appellant continues that Okada's thresholds are a crash determination, not "desensitizing a deployment algorithm decision threshold," as recited in

claims 1, 10, and 15. Appeal Br. 6. Appellant misunderstands the teachings of Okada. The Examiner correctly found that the deployment decision in Okada does not occur until after various thresholds have been met. *See* Ans. 7.

Okada teaches an acceleration sensor 30 that sends acceleration signals to triggering/resetting means 44 and acceleration/speed converter 45. Col. 9, ll. 23-34. If the trigger 44 signal is above a threshold, a signal is passed to crash state judging means 46². *Id.* Based on the signal from acceleration/speed converter 45, crash state judging means 46 determines which of the four crash profiles the acceleration best fits, based on the variation in speed over a predetermined time period. Col. 9, ll. 34-43. Based on the crash profile, crash state judging means 46 causes the threshold generating means 47-49 to generate appropriate threshold acceleration and speed signals for that crash profile, for comparison against the actual acceleration and speed, by comparators 51-54. Col. 6, l. 41 to col. 8, l. 50, figs. 3-5. Threshold generating means 47 and 49 generate acceleration threshold signals to be compared with the acceleration signal from filter 43, whereas means 48 and 50 generate speed threshold signals to be compared with the acceleration/speed converter 45 signal. Col. 8, l. 54 to col. 9, l. 11. If both the speed and acceleration thresholds are met, as determined by AND gates 55 and/or 56, then the airbag inflating circuit 33 and/or 32 is/are activated. Col. 9, ll. 12-21, 63-65, col. 10, ll. 10-12. Thus, the airbag only deploys when it meets certain thresholds appropriate for the crash type, as

² Thus, contrary to Appellant's argument (Appeal Br. 6), the triggering/resetting means 44 merely determines if the acceleration is large enough to indicate a possible crash and does not actually inflate the airbag.

determined by speed and acceleration. The thresholds in Okada ("deployment algorithm decision threshold") are scaled ("sensitized" or "desensitized") according to the crash type, as determined by whether the vehicle is traveling above or below a certain speed.

In light of the above, we agree with the Examiner's findings that Okada teaches desensitizing thresholds based on predetermined speed and time, as recited in claims 1, 10, and 15. Ans. 4, 7.

Issue 3 - Obviousness

The third issue in this appeal is whether the Examiner properly concluded that Okada renders obvious the claimed method, including determining whether the vehicle is traveling below 2 (claims 13, 14) or 7 (claims 11, 12) miles per hour (mph)³. Claims 11-14 specify a "predetermined speed" below which the algorithm decision threshold is desensitized⁴. The Examiner found that Okada does not specify a particular speed value, but that setting a particular low speed such as 2 or 7 mph (as a desensitizing threshold) is merely "discovering the optimum or workable range[] [using] routine skill in the art." Ans. 5 (*citing In re Aller*, 220 F.2d 454, 456 (CCPA 1955)).

Appellant does not appear to challenge the Examiner's particular findings or conclusion that the claimed ranges would have been obvious but rather argues that the claims require "relat[ing] a predetermined speed to a predetermined time." Appeal Br. 7. However, the Examiner makes findings that Okada describes desensitizing the decision threshold if the speed is

³ Appellant separately argues claim 6, but relies on the unpersuasive arguments presented with respect to the rejection of claim 1. Appeal Br. 7.

⁴ Claims 13 and 14 have the same recitations, albeit with different dependencies.

below a predetermined speed for a predetermined time and that Okada describes the relationship between a predetermined speed and a predetermined time, with reference to the "rough road" condition. Ans. 4, 7-8. Appellant does not contest these particular findings, and thus has not provided a persuasive argument that the Examiner erred in concluding that Okada renders obvious the method of claims 11-14.

DECISION

We affirm the Examiner's decision regarding claims 1, 4-6, and 10-15. No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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